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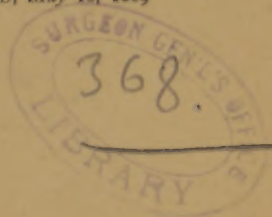
Is More Conservatism Desirable in
the Treatment of the Joint
Diseases of Children

BY

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HOSPITAL

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"Is More Conservatism Desirable in the Treatment of the Joint Diseases of Children?"¹

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THE established method of treating the so-called tubercular diseases of the joints is by opening the joint and excising or scraping the diseased bone. This method, called when it was new the conservative method, superseded amputation, and was indeed a great advance. It has occurred to me to present to you a few considerations which favor a still further advance in conservatism, as applied to the treatment of these diseased joints in children. Will it do, for instance, to withhold the knife altogether? If we answer in the affirmative we differ from the active operating surgeon of the present day, who views with indifference the opening of the cavity of a joint, or that of the abdomen, thorax, cranium, or vertebral canal. Taking a general view of operative surgery, this most attractive and popular branch of our science, the most interesting feature is the sudden relief of pain or the rapid transition from desperate peril to safety which sometimes follows a bold operation. As Sheridan turned disaster into victory

¹ Read before the Orange Mountain Medical Society, April 12, 1889.



in the Shenandoah Valley, so the bold surgeon makes his incursion into the valley of the shadow of death and returns with the trophy of life and health. But it may well be asked whether operating on a joint affected with chronic osteitis is ever followed by speedy restoration of health and function. Is it not true that the patient is so long in making a recovery that the operation always fails as an instance of brilliant and successful surgery? If the wound of operation or the sinus would only close, and the patient be well in a month or three months or six months, it might be said that the operation is justifiable and praiseworthy. But how many such patients linger a year, two years, three years, or longer, after the operation? And when finally they recover it becomes evident that the only effect of the operation, if the patient escapes with his life, has been to forestall needed mechanical treatment through overweening belief in the sufficiency of the knife, and perhaps to needlessly shorten the limb or give undue mobility to the joint.

It may be said that such a miscarriage of surgery is the result of a failure to remove all the diseased tissue. Must we, then, in the treatment of these cases, proceed as if we were dealing with a malignant affection? The great number of scarred but healthy cripples who have recovered without competent surgical attention excludes the thought of malignancy, and even indicates that in every uncomplicated case a point will certainly be reached when the destructive is replaced by a reparative process.

It is not to be denied that it would be well if, in some instances, the diseased parts could be entirely removed. But is this ever done, or can it be done? Theoretically their removal is desirable in the very earliest stage of the disease. But the subacute focus in which the disease has its origin lies hidden in some unknown part of the cancellous tissue, we know not how long, before it produces symptoms. It may even be resolved before its presence is recognized. And when the symptoms declare themselves, it is not clear at first which bone of those forming

the joint is the seat of disease, and when that point is settled we are at a loss to determine the number and location of the foci. The upshot of these baffling conditions is that the operation is necessarily postponed until the foci break down into pus and an abscess forms, and in this stage the exploring surgeon usually exposes a great quantity of diseased tissue which gave no external indication of its presence. He finds that thorough removal of all that is diseased, with nothing left in the extensive wound but healthy tissue, is an impossibility. He not only has difficulty in deciding between healthy and unaffected bone, but he also runs the deplorable risk of extirpating portions which are granulating and cicatrizing. He knows not how many foci not yet broken down lie beyond the reach of his excavations. In view of these embarrassments, it is not strange that the expectation of a rapid recovery after operation in the so-called third stage is always disappointed.

There is one consideration which probably has weight in the minds of those who have to decide the question of operating or not, and that is the dread of visceral degeneration—the amyloid liver and kidney—as the result of long-continued suppuration. Doubtless many an operation has been undertaken in cases where an immediate successful result has been out of the question, simply for the purpose of diminishing the flow of pus. This source of danger I have had no reason to take into consideration in practice. In the few patients who have had degeneration of the liver and kidneys, this condition has seemed to be an expression of a vice of constitution of which the pernicious course of the joint disease was but another expression. I may add that I have seen reason to believe that serious disease of these organs, especially of the kidneys, occurring in the class of cases under consideration, is not always or generally fatal.

In general terms, the performance of severe operations on the skeleton of a child is to be avoided on the ground that the patient is growing. All the parts and functions

should be preserved rather than sacrificed or abridged in the slightest degree. The smallest piece of tissue or the least remnant or fragment of an ability is to be preserved and cherished, because it will not only have the growth which belongs to it in common with the rest of the body, but a growth stimulated by the effort which nature always makes in such circumstances to supply a deficiency. An adult may demand a rapid recovery at the risk of loss because his time is valuable, but growing children have time to spare. If they are out of school for a while they catch up quickly when they return to their books. If a boy is so equipped that he is free from pain and can be out-of-doors, he is not much cast down or impeded by the presence of a diseased or even a suppurating joint. An unopened abscess or a discharging sinus is often looked upon by the family friends of the patient as a most distressing and dangerous complication, the one feature of the case which calls for sympathy and strenuous treatment, when it is in reality but a secondary and unimportant incident. The sinus, no matter how wide and deep, will permanently close when the diseased bone which is the source of the pus is cicatrized, and not before, and the diseased bone cannot be successfully treated by impracticable efforts at extirpation, still less by attempting to treat the abscess or sinus. When it is proposed to see whether the progress of the disease cannot be cut short by operating on either the bone or the soft parts, at that very moment, in all probability, the bone is on the way to spontaneous recovery to be followed by permanent closure of the sinuses. The insertion of drainage-tubes, the injection of antiseptic fluids, and the other resources of minor surgery will but cause discomfort—they cannot hasten the time when disintegration ceases and repair begins.

Are we, then, powerless in a case of this kind? By no means. If we can rightly settle ourselves in the opinion that chronic osteitis of the joints in children is an affection the duration of which cannot and need not be

abruptly shortened, we are in a more favorable position to inquire what we can do to promote and stimulate the natural process of repair and provide for the greatest possible ultimate symmetry and ability. There is, however, another particular in which we will perhaps have to free our minds from a preconceived notion. I refer to the expectation of seeing our patients recover without impairment of form and function. Patients do not pass the ordeal of chronic osteitis of the joints with normal symmetry and ability. I do not here refer to those rare cases in which the osteitic focus is resolved in its early stage.

Having thus cleared the ground, so to speak, by admitting that these cases cannot be cured, in the popular meaning of that term, and that such a cure as can be obtained is to be sought by relying on the slow but sure processes of natural repair and not by operating, we are in a position to construct or outline a plan of treatment as best we may. In the general management, which is a most important part of the treatment of a child affected with chronic joint disease, I have found it difficult to keep the parents from acting on a false notion of the severity of the disease and the peril of the patient. It is not easy to convince the parent of a child who wears a splint and has purulent collections and discharges that such a child should be allowed to run about at will and to eat all kinds of food. But, practically, a child in this condition should be incited to activity. He should almost be driven from his bed and from a habit of invalidism. If the "running sores" are viewed with apprehension by the adults of the family the child will suffer in imagination, but if they are made light of he will soon learn, what is the fact, that they are painless and readily tolerate disturbance and even violence, and they will not then prevent him from enjoying life with his play-fellows and fortifying his appetite and general condition with fresh air and the wholesome activities of childhood. Such a child should, as a rule, be an "office patient;" if treated

at a hospital he should be an out-patient. A child leading such a life would expect, and should have, the diet of healthy children. There will be days when he will be overcome by lassitude and nights when he will lose part of his sleep through pain. During these periods, which diminish in length and frequency as the case approaches recovery, the patient will be less active, the regulation of the diet will call for special attention, and judicious medication will be required. When the transient depression has passed there is all the more reason for encouraging a return to activity.

But many of these patients will be unable to be active unless we restore to them the power of locomotion of which they are temporarily deprived by the disablement of a limb. The first point which claims practical attention when local treatment is begun is the necessity of fixing the diseased joint. If this can be done a great deal of pain and discomfort is arrested, and not only is pain arrested but we thus apply to the inflamed joint the most widely recognized antiphlogistic, arrest of function, just as we forbid the use of an inflamed eye or arrest the motion of the inflamed pleura by surrounding the chest with a strip of adhesive plaster. And when the joint is securely fixed it becomes evident that the patient is not only benefited locally but also generally, because now he can move about without disturbance of the joint and is able to climb the stairs in-doors and make the wished-for excursions out-of-doors.

Thus far we have made no distinction between the joints of the upper and those of the lower extremity, but it will be necessary to make this distinction because we all know that the former are much less frequently and less seriously affected by osteitis than the latter. For instance, we have no shoulder disease comparable in frequency and destructiveness with hip-disease. White-swelling of the knee has, from the beginning of surgery, been a reproach, but there is no affection of such frequency and severity in the elbow. I believe the differ-

ence depends on difference in mechanical environment, and chiefly on the fact that the upper extremity, being pendent, is exempt from the pressure and concussion which, from the nature of the case, fall to the lot of the lower extremity in standing and locomotion.

A glance at the statistics of orthopedic institutions reveals some interesting facts bearing on this question. From the last annual reports of two such charities in New York City it appears that in a single year 577 patients were treated for disease in the hip, 181 in the knee, 6 in the shoulder, and 8 in the elbow, making an aggregate of 758 patients with disease in the large joints of the lower, and only 14 with disease in those of the upper extremity. The disproportion is not so extreme as it appears to be at the first view, because doubtless many cases of disease of the shoulder and elbow are retained in general hospitals; but it will probably be agreed that in the great majority of cases of chronic articular osteitis the affection is found in the lower extremity. The first and most obvious inference is that the occurrence of the incipient osteitic focus is rare in the upper and common in the lower extremity. But is this a reasonable inference? Is not the more remote inference more likely to be correct that foci occurring in the cancellous tissue of the upper limb are resolved at an early stage and before recognition, because they are, from the nature of the case, exempt from the violence which in the lower limb forbids early resolution. The practical lesson to be drawn is the necessity of imitating in the lower the mechanical environment of the upper limb. The lower extremity should be made a pendent member by some form of crutch, axillary or perineal, from the earliest recognition of the disease till its resolution. In this way we not only relieve and prevent pain, but we also apply to the inflamed joint the most widely recognized antiphlogistic, arrest of function—and what function of bone and joint in the lower extremity is more arduous and exacting than that of enduring the weight of the body, standing and in locomotion? And

when the painful limb is relieved from this burden it becomes evident that the patient is not only benefited locally but also generally, because he is now able without apprehension to do with considerable ability his share of out-door sports.

I will not on this occasion intrude on your attention the details of mechanical treatment, because they cannot be well appreciated in the absence of clinical demonstration, and also because it is in the power of every practitioner to apply the principles which I have referred to and which are set forth with practical details in many publications.

While it would be difficult to find a case of chronic articular osteitis in which mechanical treatment would not meet with general approval, the majority of surgeons probably choose to combine with it some form of operative treatment. For my part I would make mechanical treatment an essential element in the management of every such case, recognizing the possible value of the knife, but not seeing, or expecting to see in ordinary practice, cases which would be benefited by its use. I have not cited cases and have not tried to make a formal argument, but have sought to present in an unstudied way the impressions and convictions which practice and observation have led me to in the hope of turning your thoughts in the same direction.

4 EAST TWENTY-FIFTH STREET, CORNER OF MADISON AVENUE.

